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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Applicant: **John R. Hershey, et al.**
Serial No.: **10/608,988**
Filed: **June 27, 2003**
For: **Speech Detection and Enhancement using Audio/Video Fusion**
Art Unit: **Unknown**
Examiner: **Unknown**

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

1. Pursuant to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the patents, publications and other information listed on the attached PTO-1449. A copy of each listed document is enclosed except for: (a) pending applications or (b) those previously cited or submitted to the Office in the following application(s) upon which this application relies for an earlier filing date under 35 U.S.C. 120:

Serial No.:
Filing Date:

Regarding any document, publication or other information for which a date is not given on the attached PTO-1449, Applicant(s) believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, although Applicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.

2. Regarding each listed document that is not in the English language, an English-language translation accompanies this Statement as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the following document(s):

- (a) ____ Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.
- (b) ____ Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".

3. Pursuant to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):

- (a) X Within 3 months of the filing date or date of entry into the National Stage.
- (b) ____ Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R.
- (c) ____ After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a

notice of allowance.

(1) ___ The required certification is given below, or

(2) ___ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement.

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4. Certification (if applicable)

(a) ___ The undersigned hereby certifies that each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.

(b) ___ The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement.

Respectfully Submitted,
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CERTIFICATE OF MAILING

I hereby certify that this correspondence (along with any paper referenced as being attached or enclosed) is being deposited on the below date with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: 8-27-2003

Jeffrey R. Sadlowski
Jeffrey R. Sadlowski



Substitute for form 1449B/PTO

(use as many sheets as necessary)

Sheet 1 of 1

Application Number	10/608,988
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First Named Inventor	John R. Hershey
Group Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	MS302100.1/MSFTP436US

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		<p>H. ATTIAS, A. ACERO, J.C. PLATT, and L. DENG. Speech Denoising and Dereverberation using Probabilistic Models, <i>Microsoft Research</i>, 2002. 7 pages.</p> <p>M.J. BEAL, H. ATTIAS, and N. JOJIC. Audio-video Sensor Fusion with Probabilistic Graphical Models, <i>Microsoft Research</i>, 2002. 15 pages.</p> <p>V.R. DE SA and D. BALLARD. Category Learning through Multi-Modality Sensing. In <i>Neural Computation</i>, 10(5), 1998. 24 pages.</p> <p>BRENDAN FREY and NEBOJSA JOJIC. Estimating Mixture Models of Images and Inferring Spatial Transformations using the EM Algorithm, In <i>Computer Vision and Pattern Recognition(CVPR)</i>, 1999. 7 pages.</p> <p>J. HERSHEY and M. CASEY. Audio-visual Sound Separation via Hidden Markov Models. In T.G. Dietterich, S. Becker, and Z. Ghahramani, editors, <i>Advances in Neural Information Processing Systems 14</i>, pages 1173-1180, Cambridge, MA, 2002, MIT Press.</p> <p>J. HERSHEY and J.R. MOVELLAN. Audio Vision: Using Audio-visual Synchrony to Locate Sounds. In <i>Advances in Neural Information Processing Systems 12</i>. S.A. Solla, T.K. Leen, and K.R. Muller(eds.), pp. 813-819, MIT Press, 2000.</p>	

Examiner
Signature

Date
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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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